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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/773,983

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Jeffrey B. Feldstein

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10/17/2006

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EXAMINER

FERRIS III, FRED O

ART UNIT

PAPER NUMBER

2128

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,983

Applicant(s)

FELDSTEIN ET AL.

Examiner

Fred Ferris

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. *Claims 1-19 have been presented for examination based on applicant's disclosure filed 14 January 2004. Claims 1-19 remain pending in this application and stand rejected by the examiner.*

Drawings

2. *Applicant's drawings filed 14 January 2004 have been reviewed and are approved by the examiner.*

Claim Objections

3. *Claims 7, 15, 24, and 31 are objected to because of the following informalities: Specifically, each claim appears to inadvertently recite the phrase "wherein the build file is text file". The examiner believes that applicants actually intended the claim to recite the more grammatically correct phrase "wherein the build file is a text file". Appropriate correction is required.*

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. ***Claims 26-31 are rejected under 35 U.S.C. 101 because the claimed invention is drawn to non-statutory subject matter.***

Per claims 17-31: The Examiner submits that the claims, as currently written, are

Art Unit: 2128

merely drawn to a "system" that consists of entirely of nonstatutory descriptive material. (i.e. software per se) In this instance, the claimed "means for receiving network topology", and means for "automatically generating a build file", for example, appear to simply be software components that are not structurally and functionally interrelated as a computer component.

MPEP 2106 recites the following supporting rational for this reasoning:

"Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. Warnerford, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized."

Here, the claimed "system" appears to lack any computer hardware components (e.g., processor, memory, etc.) for carrying out the recited "means for" elements noted above. Dependent claims inherit the defect of the claims from which they depend.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-31 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over “Network Simulations with OPNET”, X. Chang, Proceedings of 1999 Winter Simulation Conference, IEEE 1999.

Regarding independent claims 1, 9, 17, and 26: Chang discloses the commercially available OPNET Modeler network simulator and modeling tool used for the development and analysis of optical communications networks including modeling an environment from a database using hierarchically arranged items (Sections 2.0-2.1.3). The OPNET Modeler provides a GUI based user interface for developing a simulated network topology model including a Network Editor, Node Editor, Process Editor, Simulation & Debugging tool, Probe editor, Analysis tool, Filter tool, Animation tool, and a Model Library that includes models for popular network architectures (fiber optic, LAN, Ethernet, x.25, etc.) and models for popular vendor network hardware (routers, amplifiers, etc.). (Sections 2.2-3.0, Figs. 1-10) OPNET Modeler therefore allows the user to select input features defining a network design space (plurality of items) and automatically generate network logical connection by dropping and dragging GUI (and repeating) represented items (graphical elements) in a design window.

Looking into applicants' specification for guidance on the specific meaning of the claimed term “build file” reveals that a build file is merely a file containing ASCII code defining the connection information for each device of the network topology (See: specification page 19, lines 7-19), which would be necessarily inherent to OPNET

Modeler as a method of defining the connections GUI based network devices (see: Fig. 8, Network Editor, Section 2.1.1)

In the alternative, claims 1, 9, 17, and 26 would have been obvious since a skilled artisan having access to the teachings of Chang would have knowingly implemented a functionally equivalent "build file" as a method of storing and tracking the network topology configuration. (See: "file", "configuration", Microsoft Computer Dictionary 1997)

Regarding dependent claims 2-8, 10-16, 18-25, and 27-31: Chang discloses the OPNET user interface for entering commands for creating simulated network, defining topology of said simulated network, and invoking simulated network, user Interface in communication with network simulation system. (page 309, Section 2.1.1, 2.2.1) Chang further discloses OPNET's Node Editor for creating and modeling functions by dropping and dragging GUI represented items (graphical elements) that make up the optical network and repeating (i.e. cloning) network elements. (page 309, sections 2.1.1 and 2.1.2) OPNET's Model Library includes models for popular vendor hardware component (devices) modules and allows the user to fully define and simulate the functionality (map environmental model) of a network environment and automatically generate components connections in user design windows. (See: OPNET Modeler product brochure, OPNET Tech. Inc., 2001, Standard Models, Vendor Device Models) Again looking into applicants' specification for guidance on the specific meaning of the claimed term "neighbor discover protocol table (NDP)" we find that the discovery protocol table is simply a table containing connection information for each device

identifying its connected network devices and parameters (See: specification page 15, lines 4-12) which is rendered obvious/anticipated by Changs' teaching of the Network Editor, Section 2.1.1.

6. Claims 1-31 are rejected under 35 U.S.C. 102(a) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over "OPNET Modeler", Product Description, OPNET Technologies Inc., March 2001. (Hereafter OPNET)

Regarding independent claims 1, 9, 17, and 26: OPNET discloses the commercially available OPNET Modeler network simulator and modeling tool used for the development and analysis of optical communications networks including modeling an environment from a database using hierarchically arranged items (pp. 2-3). The OPNET Modeler provides a GUI based user interface for developing a simulated network model including a Network Editor, Node Editor, Process Editor, Simulation & Debugging tool, Probe editor, Analysis tool, Filter tool, Animation tool, and a Model Library that includes models for popular network architectures (fiber optic, LAN, Ethernet, x.25, etc.) and models for popular vendor network hardware (routers, amplifiers, etc.). (pp. 3-4) OPNET Modeler therefore allows the user to select input features defining a network design space (topology) and automatically generate network logical connection by dropping and dragging GUI represented items (graphical elements) in a design window (whiteboard) that fully define and simulate the modeled environment and related components.

Looking into applicants' specification for guidance on the specific meaning of the claimed term "build file" reveals that a build file is merely a file containing ASCII code defining the connection information for each device of the network topology (See: specification page 19, lines 7-19), which would be necessarily inherent to OPNET Modeler as a method of defining the connections GUI based network devices (see: Pages 1-3)

In the alternative, claims 1, 9, 17, and 26 would have been obvious since a skilled artisan having access to the teachings of OPNET Modeler would have knowingly implemented a functionally equivalent "build file" as a method of storing and tracking the network topology configuration. (See: "file", "configuration", Microsoft Computer Dictionary 1997)

Regarding dependent claims 2-8, 10-16, 18-25, and 27-31: OPNET discloses the OPNET user interface for entering commands for creating simulated network, defining topology of said simulated network, and invoking simulated network, user Interface in communication with network simulation system. (pp. 2-4) OPNET further discloses OPNET's Node Editor for creating and modeling functions by dropping and dragging GUI represented items (graphical elements) that make up the optical network. (pp. 2-8) OPNET's Model Library includes models for popular vendor hardware component (devices) modules and allows the user to fully define and simulate the functionality (map environmental model) of a network environment and automatically generate components connections in user design windows. (See: OPNET Modeler product brochure, OPNET Tech. Inc., 2001, Standard Models, Vendor Device Models) Again

looking into applicants' specification for guidance on the specific meaning of the claimed term "neighbor discover protocol table (NDP)" we find that the discovery protocol table is simply a table containing connection information for each device identifying its connected network devices and parameters (See: specification page 15, lines 4-12) which is rendered obvious/anticipated by OPNETs' teaching of the Network Editor, pages 1-3.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,714,217 issued to Huang et al.

Regarding independent claims 1, 9, 17, and 26: Huang teaches method and system for generating a simulated network inclusive of network topology generated by user interface GUI of network devices (CL3-L17-47, CL5-L21-42, Figs. 2-8) and a file (building) describing the network topology (CL7-L45-59, Fig. 3). As previously noted, the claimed "build file" is merely a file containing ASCII code defining the connection information for each device of the network topology (See: specification page 19, lines 7-

Art Unit: 2128

19) which is anticipated by Huang's teaching of network model and configuration files (CL4-L34-59, CL5-L63-CL6-L12, CL7-L1-49).

Regarding dependent claims 2-8, 10-16, 18-25, and 27-31: Huang further discloses accessing device (type) information and characteristics (CL4-L34-59, CL5-L21-42), for multiple devices (routers, switches, etc.) and network management simulation (CL5-L55-63, Figs. 5A-F). As also previously noted, the claimed term "neighbor discover protocol table (NDP)" is simply a table containing connection information for each device identifying its connected network devices and parameters (See: specification page 15, lines 4-12) which is rendered anticipated by Huang's network models as noted above (CL4-L34-59, CL5-L63-CL6-L12, CL7-L1-49).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, careful consideration should be given prior to applicant's response to this Office Action.


"OPNET Modeler and Ns-2: Comparing the Accuracy of Network Simulators for Packet-Level Analysis using a Network Testbed", Lucio et al, University of Essex, July 2003, teaches the OPNET Modeler network simulator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry

Art Unit: 2128

of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-2279. The Official Fax Number is: (571) 273 8300

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